

AMENDMENT UNDER 37 C.F.R. § 1.111  
Application 09/801,049  
Attorney Docket Q63429

### **REMARKS**

#### **General remarks.**

Claims 1-5 are all the claims pending in the application. Only claim 1 is herein amended. Claim 1 is amended to reflect the area in which the claimed system is most important, namely, aboard a sea going vessel. The preamble and body of the claim have both been amended to include this requirement. This requirement is not new matter, and appears in the originally-filed specification at page 1, lines 12-16, and in the enclosed substitute specification at paragraph [0002].

Applicant respectfully requests the Examiner to withdraw the objection to the specification and claims in view of the enclosed substitute specification. In particular, the enclosed substitute specification includes section headings and is double-spaced.

Applicant respectfully requests the Examiner to reconsider his objection to the drawing. Claim 1 shows a system which reflects the invention, and it would be confusing to the reader to label it "prior art". Even if it were the case that each individual element were known in some fashion, the system as a whole reflects the invention. Applicant therefore respectfully requests the Examiner to withdraw the objection to Fig. 1.

#### **Prior art rejections.**

##### *§ 102: Williams.*

The Examiner rejected claims 1, 2, 4/1, and 4/2/1 under 35 U.S.C. §102(b) as being anticipated by Williams. Of these rejected claims, only claim 1 is independent. Applicant respectfully traverses this rejection, first with respect to independent claim 1 (as now amended).

Claim 1 requires a variable hydraulic pump (this requirement is not new, but was included in claim 1 as originally-filed). The Williams pump is a fixed hydraulic pump. Williams therefore does not anticipate claim 1 within the meaning of 35 U.S.C. § 102. Applicant therefore respectfully requests the Examiner to withdraw this rejection of independent claim 1 and its dependent claims rejected on this ground.

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For the sake of facilitating the ultimate disposition of this application, Applicant respectfully includes the following analysis as to whether Williams would render claim 1 unpatentable within the meaning of 35 U.S.C. § 103.

Applicant respectfully submits that Williams would not render claim 1 unpatentable under 35 U.S.C. §103(a). Williams is non-analogous prior art, and would not have any application to a sea-going vessel. Williams relates to a truck-mounted welder, and the artisan of ordinary skill would not consult such a reference when confronted with the problem of providing a constant quantity of oil to the main engine to drive the propeller of a sea-going vessel. Williams is from a different field, and operates in an entirely different manner with the goal of solving an entirely different problem.

It is noted that the disclosed embodiments do not drop excess pressurized oil to maintain constant flow, but have an angled hydraulic pump so that the oil supply is constant, even in the face of great rotational speed variations. The claimed system *describes* a closed hydrostatic system and thus has a high efficiency, as the supply rate of the pump is controlled continuously without dropping oil to the tank.

In contrast to the Williams reference, the goal of the system as set forth in claim 1 is to supply electricity for all purposes on board a sea going vessel when the main engine at the same time also is used for the propulsion of the vessel. The supply of electricity must be performed with high accuracy because much of the equipment (such as radar, sonar, control systems, communications, etc) requires stable frequency and voltage.

Williams does not, by itself, lead to the system as set forth in independent claim 1. Even when combined with common knowledge (probably especially when combined with common knowledge and ordinary sense), Williams does not teach or suggest the system as now claimed in independent claim 1, or any of its dependent claims. For all of the foregoing reasons, therefore, Applicant respectfully submits that independent claim 1 patentably distinguishes over Williams alone, or taken in combination with what may constitute common knowledge.

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*§ 103: Williams and common knowledge.*

The Examiner rejected claims 3/1 and 4/3/1 under 35 U.S.C. §103(a) as being unpatentable over Williams in view of knowledge asserted to be common in the art. Inasmuch as these rejected claims depend from independent claim 1, it is respectfully submitted that the comments already made above apply with equal force to this rejection. For the same reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claims 3 and 4/3.

In connection with this rejection, the Examiner included some interesting points about how apparatus claims are to be interpreted during examination drawn from the ancient Danly case and the more recent Hewlett Packard case (mentioned in MPEP § 2114). Applicant notes with interest, however, the following additional statement made by the Examiner:

That is, in an apparatus claim, if a prior art structure discloses all of the structural elements in the claim, as well as their relative juxtaposition, then it reads on the claim, regardless of whether or not the function for which the prior art structure was intended is the same as that of the claims invention.

The foregoing statement appears to be the Examiner's own personal opinion as to the state of the law, because the Office Action lacks any specific authority for the statement.

Without disrespect, Applicant's representative respectfully points out that the Examiner's position, as stated above, is too broad. In fact, 35 U.S.C. § 112, paragraph 6 specifically permits functional language in any claim, and requires that the claim be construed in accordance with such functional language. As the MPEP notes in § 2173.05(g), a functional limitation is an attempt to define something by what it does, rather than by what it is, and there is nothing wrong with defining parts of an invention in functional terms. A functional limitation must be evaluated and considered just like any other limitation of the claim.

The Examiner's unsupported statement makes it sound as if the Examiner believes that there are two kinds of elements: functional elements and structural elements; and that functional

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elements in the claim can be entirely ignored, so long as "all of the structural elements" are disclosed in appropriate juxtaposition. Since such a position would be in clear contradiction to §112, ¶6 of Title 35, United States Code, the Examiner may wish to refrain from including the above-identified statement in future actions.

*§103: Williams in view of Bonner.*

The Examiner rejected claim 5/1-3 as being unpatentable over Williams in view of Bonner. As already mentioned, above, claim 1 patentably distinguishes over Williams by virtue of its requirements relating to a variable hydraulic pump and to being on board a sea going vessel. Bonner does not compensate for these deficiencies of Williams vis-à-vis independent claim 1. Even taken for what they would have meant as a whole to an artisan of ordinary skill, the combined teachings of these two references would not have (and could not have) enabled such a person to achieve the subject matter of independent claim 1, let alone its dependent claims 1/5, 1/2/5, and 1/3/5. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claims 5/1-3.


Conclusion and request for telephone interview.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE TITLE:**

**The title is changed as follows:**

**AN ELECTRIC FREQUENCY CONTROL SYSTEM FOR THE HYDRAULIC OPERATION OF [OPERATING] AN ELECTRIC GENERATOR FROM A MAIN ENGINE HAVING A VARYING ROTATIONAL SPEED.**

**IN THE SPECIFICATION:**

**The specification is changed as shown in the enclosed redlined version of the substitute specification.**

**IN THE CLAIMS:**

1. (Amended) A system for operation of an electric generator from a main engine, on board a sea going vessel, having a varying rotational speed, comprising:
  - a variable hydraulic pump connected to and driven from the main engine on board the sea going vessel,
  - a hydraulic motor arranged to be driven by the hydraulic pump and to drive the electric generator,
  - a means for regulating the oil quantity from the pump in dependence on supplied electric control signals, and
  - an electronic frequency controller which is connected between a voltage output of the generator and the regulating means, and is arranged to deliver said control signals in dependence on frequency deviations on the generator output to thereby maintain the oil quantity from the pump, and therewith the generator frequency, constant.